

REMARKS

After entry of the foregoing amendment, claims 26-70 are pending in the application.

Priority

The entry of the amended priority claim is noted with appreciation.

Contrary to the Action, applicant respectfully submits that the processing of input audio data to steganographically encode a code finds support in all of the cited priority applications, going back to 1993. Indeed, the title of the 1993 application (08/154,866) was *METHOD AND APPARATUS FOR POSITIVE IDENTIFICATION OF AUDIO SIGNALS, IMAGES, AND OTHER FORMS OF SIGNALS WITH INHERENT NOISE*. Applicability of the technology to audio is noted repeatedly throughout.

The Examiner is correct that none of the 1993 or 1994 applications used the term "lossy" compression/decompression. However, survival of compression/decompression was taught by all such specs, and the context of use is believed to be such that an artisan would understand the referenced compression to be of a lossy variety.

For example, the 1993 specification states:

*The method should be robust so that an identification can be made even after multiple copies have been made and/or **compression and decompression** of the signal has taken place.*

Later it states:

*This signal may have undergone multiple copies, **compressions and decompressions**, resamplings onto different spaced digital signals, transfers from digital to analog back to digital media, or any combination of these items. IF the signal still appears similar to the original, i.e. its innate quality is not thoroughly destroyed by all of these transformations and noise additions, then depending on the signal to noise properties of the embedded signal, the identification process should function to some objective degree of statistical confidence.*

If the subject of these sentences was *lossless* compression, then survivability would not be an issue. Perfect (lossless) reproduction of the original signal would never call into question

the survivability of the encoded data. Accordingly, it is submitted that an artisan would have understood these passages to refer to forms of compression that degrade the encoded content in some way (i.e., processes that are "lossy").

If the foregoing passages left any doubt, the following should remove it. The 1993 specification further noted:

Likewise, we remove the higher frequencies because multiple generation copies of a given image, as well as compression-decompression transformations, tend to wipe out higher frequencies anyway, so there is no point in placing too much identification signal into these frequencies if they will be the ones most prone to being attenuated.

As is evident from this passage, the compression/decompression transformation contemplated by the 1993 specification was one that "tends to wipe out higher frequencies." Accordingly, this is a "lossy" operation.

(The same passages are also found in both of the 1994 priority applications.)

IDS

Regarding the 12 May 2003 IDS, the Examiner's intent is not fully understood. No paper copies of art were submitted in this IDS because all of the listed art was of record and available in an earlier application in the priority chain – as noted in the IDS statement. Rule 1.98(d) permits the listing of art without provision of copies in such circumstances.

Copies of the seven non-patent documents listed in this IDS are submitted herewith.

The Examiner is requested to return an initialed copy of the 12 May IDS with the next Action

Claim Objections

The informality in claim 41 has been redressed by amendment. This change is not being made for reasons related to patentability.

Double Patenting

Applicant respectfully disagrees with the analysis set forth by the Examiner in connection with the obviousness-type double patenting rejections.

For example, one of the point of disagreement is that the “repeating” in pending claim 27 relates to transforming values of original signals, whereas the reference to “redundantly encoded” in the patented claim 53 relates to decoding of the second (encoded) content signal.

Similarly, applicant cannot agree with the analysis offered as to claims 37 and 38. The fact that one or the other of the claims must be necessary is not sufficient to establish that both are obvious. (Consider two dependent claims relating to a recipe for making chocolate chip cookies – one calls for addition of pumpkin as a sweetener, the other calls for addition of a sweetener other than pumpkin. Can it properly be said that the addition of pumpkin as a sweetener is thereby *de facto* obvious? Applicant submits not.)

As to the rejections of other claims on obviousness-type double patenting grounds over commonly-owned patents in view of other art, it appears a *prima facie* showing of obviousness has been made as to none, e.g., because the rejections fail to offer the required motivations that would have led an artisan to the proposed modifications/combinations.

For example, the rejections of claims 39, 47, etc., over commonly-owned patents 6,542,618 and 6,026,193 in view of Gniewek (5,265,082) suffer in that the cited teaching of Gniewek concerns a physical break-away tab used in an audio cassette or video cassette housing to indicate that the media should not be written-to. The applicability of such a physical break-away tab to both audio and video cassettes does not fairly suggest to an artisan that pending claims 39, etc. (which concerns signal processing technology that is significantly different than the subject matter of Gniewek) is obvious over patented claims 1, etc. The Action's implicit finding of equivalency between the spatial and time domains appears to be without any basis from the art.

The foregoing is a sampling of some of the deficiencies. Since the Office's *prima facie* burden has not been met, applicant does not lengthen this response by belaboring more such points.

Separately, applicant has submitted new claims 68-70, for which a Terminal Disclaimer over commonly-owned patents 6,404,898, 6,542,618 and 6,026,193, respectively, is believed warranted on obviousness-type double patenting grounds (i.e., pending claim 68 in view of patented claim 21 in the '898 patent; pending claim 69 in view of claim 1 of the '618 patent; and pending claim 70 in view of claim 1 of the '193 patent). Accordingly, a Terminal Disclaimer over these patents is submitted in view of these newly added claims.

Section 112 Rejections

The Examiner is thanked for his careful review to the claims. The undersigned apologizes for the issues noted with the claims that led to the rejection.

Amendments have been made to redress these points, generally following the Examiner's helpful recommendations.

In addition to the points noted by the Examiner, applicant has removed several instances of the word "step" in the claims (i.e., claims 27, 28, 32, 35 and 36), to avoid any possible (and unintended) application of 35 USC 112, paragraph 6.

Again, the foregoing amendments are not made for reasons related to patentability, but rather just to clarify the claims.

Section 103

Claim 26 stands rejected as obvious over Moses in view of Schwab.

Applicant recognizes that claim 26 appears broad in scope. But the Examiner's attention is drawn to the "means" element in the final clause. Applicant intends that this claim element be construed in accordance with Section 112, paragraph 6. The Action does not seem to have undertaken the analysis called for in view of this "means" element.

Moreover, the rejection appears to have cited two pieces of art and proposed their combination, without an explanation of the requisite motivation to modify/combine the references in the manner proposed.

In view of the foregoing, a further non-final action, or a notice of allowance, is solicited.

Date: December 10, 2003

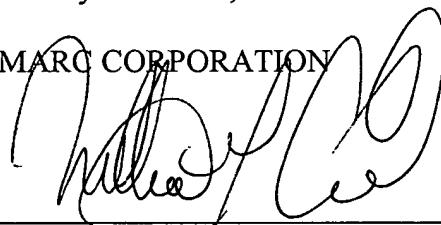
CUSTOMER NUMBER 23735

Phone: 503-885-9699
FAX 503-885-9880

Respectfully submitted,

DIGIMARC CORPORATION

By

A handwritten signature in black ink, appearing to read 'William Y. Conwell', is written over a horizontal line.

William Y. Conwell
Registration No. 31,943